

SEQUENCE LISTING

<110> Huston, James S.
Messer, Anne
Lecerf, Jean-Michel

<120> METHODS AND COMPOSITIONS FOR INHIBITING POLYPEPTIDE
ACCUMULATION ASSOCIATED WITH NEUROLOGICAL DISORDERS

<130> INR-004CP

<140> US/09/620,955

<141> 2000-07-21

<150> 60/146,047

<151> 1999-07-27

<160> 45

<170> PatentIn Ver. 2.0

<210> 1

<211> 345

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<220>

<223> The VH sequence uses a V segment of the VH3
family.

<220>

<223> CDR1 sequence: from base 91 to base 105 (15
bases).

<220>

<223> CDR2 sequence: from base 148 to base 198 (51
bases).

<220>

<223> CDR3 sequence: from base 295 to base 312 (18
bases).

<400> 1

cagggtgcagc	tgccaggagtc	gggggggaggc	ttggtacagc	ctgggggggtc	cctgagactc	60
tcctgtgcag	cctctggatt	caccttcagt	agttatagca	tgagctgggt	ccgccaggct	120
ccaggcaagg	ggctggagtg	ggtggcagtt	atatcatatg	atggaagcaa	taaatactac	180
gcagactccg	tgaaggggccg	attcaccatc	tccagagaca	attccaagaa	cacgctgtat	240
cttcaaataa	acagcctgag	agccgaggac	acggccgtgt	attactgtgc	gagagatagg	300
tacttcgata	tctggggccg	tggcaccctg	gtcaccgtct	cctca		345

<210> 2

<211> 115

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 2

Gln Val Gln Leu Gln Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30
 Ser Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Asp Arg Tyr Phe Asp Leu Trp Gly Arg Gly Thr Leu Val Thr
 100 105 110
 Val Ser Ser
 115

<210> 3
 <211> 327
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 construct

<220>
 <223> The VL sequence uses a V segment of the VL2
 family.

<220>
 <223> CDR1 sequence: from base 67 to base 108 (42
 bases).

<220>
 <223> CDR2 sequence: from base 154 to base 174 (21
 bases).

<220>
 <223> CDR3 sequence: from base 271 to base 294 (24
 bases).

<400> 3
 cagtctgccc tgactcagcc tgcctccgtg tctgggtctc ctggacagtc gatcaccatc 60
 tcctgcactg gaaccagcag tgacattggg gcttataact atgtctcctg gtaccagcag 120
 tatccaggca aggcccccaa actccttatt tatgatgtca gtaatcggcc ctcagggatt 180
 tctaactcgt tctctggctc caagtctggc gatacggcct ccctgaccat ctctgggctc 240
 caggctgagg acgaggctga ttattactgc agctcatttg cgaacagcgg ccccttattc 300
 ggcgaggagg ccaagggtcac cgtccta 327

<210> 4
 <211> 109
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 4

Gln Ser Ala Leu Thr Gln Pro Ala Ser Val Ser Gly Ser Pro Gly Gln
1 5 10 15

Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Ile Gly Ala Tyr
20 25 30

Asn Tyr Val Ser Trp Tyr Gln Gln Tyr Pro Gly Lys Ala Pro Lys Leu
35 40 45

Leu Ile Tyr Asp Val Ser Asn Arg Pro Ser Gly Ile Ser Asn Arg Phe
50 55 60

Ser Gly Ser Lys Ser Gly Asp Thr Ala Ser Leu Thr Ile Ser Gly Leu
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ser Ser Phe Ala Asn Ser
85 90 95

Gly Pro Leu Phe Gly Gly Gly Thr Lys Val Thr Val Leu
100 105

<210> 5

<211> 717

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 5

cagg	tg	cag	gag	tc	gg	gg	gg	gag	gc	tt	gg	tac	ag	ct	gg	gg	gg	gt	cct	gag	act	60	
tcct	gt	gc	ag	cct	ct	gg	att	cac	ctt	cag	t	ag	tt	at	ag	ca	tg	ag	ct	gg	gt	120	
ccag	gca	aag	gg	ct	gg	ag	tg	gg	cag	tt	at	at	cat	at	g	at	gg	aag	caa	taa	at	act	180
gcag	act	ccg	tga	agg	gg	ccg	att	cac	cat	c	tcc	ag	ag	aca	att	cca	ag	aa	cac	g	ct	gt	240
ctt	caa	tga	ac	ag	cct	gag	ag	cc	gag	gac	ac	gg	cc	gt	gt	att	act	gt	gc	gag	ag	at	300
tact	tc	gac	tct	gg	gg	ccg	tgg	cac	cc	tg	gt	cac	g	tct	cct	cag	gt	gg	agg	cg	gt	tca	360
gg	cg	gag	gtg	gct	ct	gg	cg	g	tgg	cg	at	c	gag	ct	g	ct	g	ccc	tg	act	cag	cc	420
tct	gg	gt	ctc	ct	gg	ac	ag	tc	gat	cac	cat	c	ct	g	ca	ct	g	ga	acc	ag	cag	tg	480
gct	tata	act	at	gt	ct	cct	g	tacc	ag	cag	tat	cc	ag	gca	agg	cccc	caa	act	c	tt	tatt	540	
tat	gat	gt	ca	gta	at	cg	gcc	ct	cag	gg	att	tcta	at	cg	ct	tct	g	g	ca	ag	tct	gg	600
gata	cg	gc	cct	cc	ct	gac	cat	ct	ct	g	gg	ct	c	ag	g	ct	gag	ac	gag	g	ct	ga	660
ag	ct	cat	ttg	cga	ac	ag	cg	g	cccc	tt	att	c	gg	cg	gag	gga	cca	ag	g	t	ca	c	717

<210> 6

<211> 239

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 6

Gln Val Gln Leu Gln Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Ser Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Asp Arg Tyr Phe Asp Leu Trp Gly Arg Gly Thr Leu Val Thr
 100 105 110
 Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
 115 120 125
 Gly Ser Gln Ser Ala Leu Thr Gln Pro Ala Ser Val Ser Gly Ser Pro
 130 135 140
 Gly Gln Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Ile Gly
 145 150 155 160
 Ala Tyr Asn Tyr Val Ser Trp Tyr Gln Gln Tyr Pro Gly Lys Ala Pro
 165 170 175
 Lys Leu Leu Ile Tyr Asp Val Ser Asn Arg Pro Ser Gly Ile Ser Asn
 180 185 190
 Arg Phe Ser Gly Ser Lys Ser Gly Asp Thr Ala Ser Leu Thr Ile Ser
 195 200 205
 Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ser Ser Phe Ala
 210 215 220
 Asn Ser Gly Pro Leu Phe Gly Gly Gly Thr Lys Val Thr Val Leu
 225 230 235

<210> 7
 <211> 44
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 construct

<400> 7
 tcaccgtctc ctcaggtgga ggcggttcag gcggaggtgg ctct 44

<210> 8
 <211> 48
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 construct

<400> 8
 tgggtgagct catgtccgmt ccgccaccgc cagagccacc tccgcctg 48

<210> 9
<211> 69
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Construct

<400> 9
Leu Val Pro Arg Gly Ser Val Ser Thr His His His His His Gln Gln
1 5 10 15
Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
20 25 30
Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
35 40 45
Gln His His Gly Asn Ser Gly Pro Pro Glu Phe Pro Gly Arg Leu Glu
50 55 60
Arg Pro His Arg Asp
65

<210> 10
<211> 59
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Construct

<400> 10
Leu Val Pro Arg Gly Ser Met Ala Thr Leu Glu Lys Leu Met Lys Ala
1 5 10 15
Phe Glu Ser Leu Lys Ser Phe Gln Gln Gln Gln Gln Gln Gln Gln
20 25 30
Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
35 40 45
Leu Gln Pro Gly Ser Thr Arg Ala Ala Ala Ser
50 55

<210> 11
<211> 76
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Construct

<400> 11
Leu Val Pro Arg Gly Ser Met Ala Thr Leu Glu Lys Leu Met Lys Ala
1 5 10 15

Phe Glu Ser Leu Lys Ser Phe Gln Gln Gln Gln Gln Gln Gln Gln
 20 25 30
 Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
 35 40 45
 Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
 50 55 60
 Gln Leu Gln Pro Gly Ser Thr Arg Ala Ala Ala Ser
 65 70 75

<210> 12
 <211> 64
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic Construct

<400> 12
 Met Ala Thr Leu Glu Lys Leu Met Lys Ala Phe Glu Ser Leu Lys Ser
 1 5 10 15
 Phe Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
 20 25 30
 Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
 35 40 45
 Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
 50 55 60

<210> 13
 <211> 89
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic Construct

<400> 13
 Met Ala Thr Leu Glu Lys Leu Met Lys Ala Phe Glu Ser Leu Lys Ser
 1 5 10 15
 Phe Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
 20 25 30
 Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
 35 40 45
 Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
 50 55 60
 Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
 65 70 75 80
 Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
 85

<210> 14
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Construct

<400> 14
Met Ala Thr Leu Glu Lys Leu Met Lys Ala Phe Glu Ser Leu Lys Ser
1 5 10 15
Phe Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
20 25 30
Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
35 40 45
Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
50 55 60
Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
65 70 75 80
Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
85 90 95
Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
100 105 110
Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
115 120

<210> 15
<211> 98
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Construct

<400> 15
Met Ala Thr Leu Glu Lys Leu Met Lys Ala Phe Glu Ser Leu Lys Ser
1 5 10 15
Phe Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
20 25 30
Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
35 40 45
Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
50 55 60
Leu Gln Pro Gly Gly Ser Thr Met Ser Arg Gly Pro Phe Glu Gln Lys
65 70 75 80
Leu Ile Ser Glu Glu Asp Leu Asn Met His Thr Glu His His His His
85 90 95

HIS HIS

<210> 16
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Construct

<400> 16
Met Ala Thr Leu Glu Lys Leu Met Lys Ala Phe Glu Ser Leu Lys Ser
1 5 10 15
Phe Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
20 25 30
Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
35 40 45
Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
50 55 60
Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
65 70 75 80
Gln Gln Gln Gln Gln Gln Gln Gln Gln Leu Gln Pro Gly Gly Ser Thr
85 90 95
Met Ser Arg Gly Pro Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
100 105 110
Asn Met His Thr Glu His His His His His His
115 120

<210> 17
<211> 155
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Construct

<400> 17
Met Ala Thr Leu Glu Lys Leu Met Lys Ala Phe Glu Ser Leu Lys Ser
1 5 10 15
Phe Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
20 25 30
Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
35 40 45
Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
50 55 60
Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
65 70 75 80

Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
 85 90 95
 Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
 100 105 110
 Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
 115 120 125
 Met Ser Arg Gly Pro Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
 130 135 140
 Asn Met His Thr Glu His His His His His His
 145 150 155

<210> 18
 <211> 66
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic Construct

<400> 18
 Ile Asp Gly Gly Gly Gly Gly Lys Gly Pro Val Thr Gly Thr Gly Ser
 1 5 10 15
 Met Ala Thr Leu Glu Lys Leu Met Lys Ala Phe Glu Ser Leu Lys Ser
 20 25 30
 Phe Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
 35 40 45
 Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
 50 55 60
 Thr Asn
 65

<210> 19
 <211> 145
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic Construct

<400> 19
 Ile Asp Gly Gly Gly Gly Gly Lys Gly Pro Val Thr Gly Thr Gly Ser
 1 5 10 15
 Met Ala Thr Leu Glu Lys Leu Met Lys Ala Phe Glu Ser Leu Lys Ser
 20 25 30
 Phe Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
 35 40 45
 Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
 50 55 60

Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
65 70 75 80
Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
85 90 95
Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
100 105 110
Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
115 120 125
Gln Gln Gln Gln Gln Gln Gln Gln Leu Gln Pro Arg Ile Leu Thr
130 135 140

Asn
145

<210> 20
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Construct

<400> 20
Ile Asp Gly Gly Gly Gly Gly Lys Gly Pro Val Thr Gly Thr Gly Ser
1 5 10 15
Val Ser Thr His His His His His Gln Gln Gln Gln Gln Gln Gln Gln
20 25 30
Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
35 40 45
Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
50 55 60
Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
65 70 75 80
Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
85 90 95
Gln Gln Gln Gln Gln Gln Gln Gln Gln His His Ser Gly Pro Pro Glu
100 105 110

Phe

<210> 21
<211> 79
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 21

Met Ala Thr Leu Glu Lys Leu Met Lys Ala Phe Glu Ser Leu Lys Ser
 1 5 10 15
 Phe Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
 20 25 30
 Gln Gln Gln Gln Gln Gln Gln Gln Pro Pro Pro Pro Pro Pro Pro
 35 40 45
 Pro Pro Pro Gln Leu Pro Gln Pro Pro Pro Gln Ala Gln Pro Leu Leu
 50 55 60
 Pro Gln Pro Gln Pro Pro Pro Pro Pro Pro Pro Pro Pro Gly
 65 70 75

<210> 22
 <211> 70
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 construct

<400> 22
 His Pro Glu Ala Ala Ser Ala Ala Pro Pro Gly Ala Ser Leu Leu Leu
 1 5 10 15
 Leu Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
 20 25 30
 Gln Gln Gln Gln Gln Gln Glu Thr Ser Pro Arg Gln Gln Gln Gln
 35 40 45
 Gln Gly Glu Asp Gly Ser Pro Gln Ala His Arg Arg Gly Pro Thr Gly
 50 55 60
 Tyr Leu Val Leu Asp Glu
 65 70

<210> 23
 <211> 64
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 construct

<400> 23
 Gly Ala Gln Glu Thr Ala His Pro Pro Val Ala Thr His His His
 1 5 10 15
 His Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln His
 20 25 30
 His Gly Asn Ser Gly Pro Pro Pro Pro Gly Ala Phe Pro His Pro Leu
 35 40 45
 Glu Gly Gly Ser Ser His His Ala His Pro Tyr Ala Met Ser Pro Ser
 50 55 60

<210> 24
<211> 81
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 24
Leu Leu Ala Asn Met Gly Ser Leu Ser Gln Thr Pro Gly His Lys Ala
1 5 10 15
Glu Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln His Gln His
20 25 30
Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln His
35 40 45
Leu Ser Arg Ala Pro Gly Leu Ile Thr Pro Gly Ser Pro Pro Pro Ala
50 55 60
Gln Gln Asn Gly Tyr Val His Ile Ser Ser Ser Pro Gln Asn Thr Gly
65 70 75 80
Arg

<210> 25
<211> 72
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 25
Arg Pro Ala Cys Glu Pro Val Tyr Gly Pro Leu Thr Met Ser Leu Lys
1 5 10 15
Pro Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
20 25 30
Gln Gln Gln Gln Gln Gln Gln Pro Pro Pro Ala Ala Ala Asn Val Arg
35 40 45
Lys Pro Gly Gly Ser Gly Leu Leu Ala Ser Pro Ala Ala Ala Pro Ser
50 55 60
Pro Ser Ser Ser Ser Val Ser Ser
65 70

<210> 26
<211> 72
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 26

Glu Glu Leu Arg Lys Arg Arg Glu Ala Tyr Phe Glu Lys Gln Gln Gln
1 5 10 15

Lys Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
20 25 30

Gln Gln Gln Gln Gln Gln Gln Arg Asp Leu Ser Gly Gln Ser Ser His
35 40 45

Pro Cys Glu Arg Pro Ala Thr Ser Ser Gly Ala Leu Gly Ser Asp Leu
50 55 60

Gly Lys Ala Cys Ser Pro Phe Ile
65 70

<210> 27

<211> 80

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 27

Gln Pro Ile Gln Asn Thr Asn Ser Leu Ser Ile Leu Glu Glu Gln Gln
1 5 10 15

Arg Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
20 25 30

Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
35 40 45

Gln Gln Gln Gln Gln Gln Gln Ala Val Ala Ala Ala Ala Val Gln Gln
50 55 60

Ser Thr Ser Gln Gln Ala Thr Gln Gly Thr Ser Gly Gln Ala Pro Gln
65 70 75 80

<210> 28

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 28

Tyr Pro Tyr Asp Val Pro Asp Tyr Ala
1 5

<210> 29
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 29
Tyr Asp Val Pro Asp Tyr Ala Thr Pro Pro Leu Leu Leu Leu Val
1 5 10 15

<210> 30
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 30
Tyr Pro Tyr Asp Val Pro Asp Tyr Ala Ser Asp Lys Gln Thr Leu Leu
1 5 10 15

Gln Asn Glu Gln Leu Tyr Gln Pro Leu
20 25

<210> 31
<211> 27
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 31
Tyr Pro Tyr Asp Val Pro Asp Tyr Ala Ser Lys Asp Gly Lys Lys Lys
1 5 10 15

Lys Lys Lys Ser Lys Thr Lys Cys Val Ile Met
20 25

<210> 32
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 32
Tyr Pro Tyr Asp Val Pro Asp Tyr Ala Ser Glu Lys Asp Glu Leu
1 5 10 15

<210> 33
<211> 12

<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 33
Tyr Pro Tyr Asp Val Pro Asp Tyr Ala Ser Lys Leu
1 5 10

<210> 34
<211> 38
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 34
Tyr Pro Tyr Asp Val Pro Asp Tyr Ala His Ile Lys Val Arg Arg Lys
1 5 10 15
Asn Ile Phe Glu Asp Ala Tyr Gln Glu Ile Met Arg Gln Thr Pro Glu
20 25 30
Asp Leu Lys Lys Arg Leu
35

<210> 35
<211> 41
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 35
Met Ile Lys Phe Asp Gly Glu Glu Gly Leu Asp Tyr Gly Gly Val Ser
1 5 10 15
Arg Glu Phe Phe Phe Leu Leu Ser His Glu Met Phe Asn Pro Phe Tyr
20 25 30
Cys Leu Phe Glu Tyr Ser Ala Tyr Asp
35 40

<210> 36
<211> 40
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 36
Asn Tyr Thr Ile Gln Ile Asn Pro Asn Ser Gly Ile Asn Pro Glu His
1 5 10 15

Leu Asn Tyr Phe Lys Phe Ile Gly Arg Val Val Gly Leu Gly Val Phe
20 25 30

His Arg Arg Phe Leu Asp Ala Phe
35 40

<210> 37
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 37
Phe Val Gly Ala Leu Tyr Lys Met Met Leu Arg Lys Lys Val Val Leu
1 5 10 15

Gln Asp Met Glu Gly Val Asp Ala Glu Val Tyr Asn Ser Leu Asn
20 25 30

<210> 38
<211> 43
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 38
Trp Met Leu Glu Asn Ser Ile Asp Gly Val Leu Asp Leu Thr Phe Ser
1 5 10 15

Ala Asp Asp Glu Arg Phe Gly Glu Val Val Thr Val Asp Leu Lys Pro
20 25 30

Asp Gly Arg Asn Ile Glu Val Thr Asp Gly Asn
35 40

<210> 39
<211> 43
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 39
Lys Lys Glu Tyr Val Glu Leu Tyr Thr Gln Trp Arg Ile Val Asp Arg
1 5 10 15

Val Gln Glu Gln Phe Lys Ala Phe Met Asp Gly Phe Asn Glu Leu Ile
20 25 30

Pro Glu Asp Leu Val Thr Val Phe Asp Glu Arg
35 40

<210> 40
<211> 43
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 40
Glu Leu Glu Leu Leu Ile Gly Gly Ile Ala Glu Ile Asp Ile Glu Asp
1 5 10 15
Trp Lys Lys His Thr Asp Tyr Arg Gly Tyr Gln Glu Ser Asp Glu Val
20 25 30
Ile Gln Trp Phe Trp Lys Cys Val Ser Glu Trp
35 40

<210> 41
<211> 44
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 41
Asp Asn Glu Gln Arg Ala Arg Leu Leu Gln Phe Thr Thr Gly Thr Ser
1 5 10 15
Arg Ile Pro Val Asn Gly Phe Lys Asp Leu Gln Gly Ser Asp Gly Pro
20 25 30
Arg Arg Phe Thr Ile Glu Lys Ala Gly Glu Val Gln
35 40

<210> 42
<211> 40
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 42
Gln Leu Pro Lys Ser His Thr Cys Phe Asn Arg Val Asp Leu Pro Gln
1 5 10 15
Tyr Val Asp Tyr Asp Ser Met Lys Gln Lys Leu Thr Leu Ala Val Glu
20 25 30
Glu Thr Ile Gly Phe Gly Gln Glu
35 40

<210> 43
<211> 9
<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 43

Tyr Pro Tyr Asp Val Pro Asp Tyr Ala
1 5

<210> 44

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 44

Thr Pro Pro Leu Leu Leu Arg Leu Val
1 5

<210> 45

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 45

Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
1 5 10